

### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-39 (canceled)

40. (currently amended) The **[method] array** of claim **[19] 103** wherein the particulate support for each of the **[plurality of dispersions] supported platinum alloy powder members** has an average size of at least about 100 nm.

41. (currently amended) The **[method] array** of claim **[19] 103** wherein the particulate support for each of the **[plurality of dispersions] supported platinum alloy powder members** has an average size that is between about 200 and about 300 nm.

42-67 (canceled)

68. (currently amended) The **[method] array** of claim **[63] 103** wherein the common library substrate comprises **spatially discrete** regions having a region density of not more than about one region per  $\text{cm}^2$ .

69. (currently amended) The **[method] array** of claim **[63] 103** wherein the common library substrate comprises **spatially discrete** regions having a region density of not more than about one region per  $\text{cm}^2$ .

70. (currently amended) The **[method] array** of claim **[63] 103** wherein the common library substrate is a microtiter plate comprising **spatially discrete** regions defined by wells having a region density of not more than about one region per  $\text{cm}^2$ .

71-88. (canceled)

89. (currently amended) The **[method of any one of claims 1, 19 or 48] array of claim 103** wherein said plurality of supported metal-containing **[powders] powder members** comprises at least about 5 **[powders] powder members**.

90-95 (canceled)

96. (currently amended) The library of claim **[91] 103** wherein the loading of the deposits **on the particulate support for each member** is between about 20 and about 60 weight percent of the particulate support.

97. (currently amended) The library of claim **[91] 103** wherein the loading of the deposits **on the particulate support for each member** is between about 20 and about 40 weight percent of the particulate support.

98. (currently amended) The library of claim **[91] 103** wherein the average deposit size **on the particulate support for each member** is no greater than about 5 nm.

99. (currently amended) The library of claim **[91] 103** wherein the **average** deposit size **on the particulate support for each member** is no greater than about 2 nm.

100. (currently amended) The library of claim **[91] 103** wherein the average deposit size **on the particulate support for each member** is between about 5 and about 10 nm.

101. (currently amended) The library of claim **[91] 103** wherein the deposit size distribution is such that at least about 80 percent of the **platinum [metal]** alloy deposits

are between about 75 and about 125 percent of the average platinum [metal] alloy deposit size.

103 (new). A combinatorial library of supported platinum alloy powders, the combinatorial library comprising an array, the array comprising a plurality of supported platinum alloy powder members at spatially discrete regions of a common library substrate, each of the plurality of supported platinum alloy powder members comprising a particulate support and deposits of a platinum alloy on the particulate support, wherein (a) the platinum alloy comprises a non-noble metal, (b) the loading of the deposits on the particulate support for each member is at least about 20 weight percent, (c) the average size of the deposits for each member is no greater than about 10 nm, (d) the deposits for each member have a size distribution wherein at least about 70 percent of the platinum alloy deposits are between about 50 and about 150 percent of the average platinum alloy deposit size; and (e) the plurality of supported platinum alloy powder members differ from each other with respect to one or more characterizing features selected from the group consisting of: (i) chemical or physical properties of the particulate support; (ii) chemical or physical properties of the platinum alloy on the particulate support; (iii) the extent of loading of the deposits on the particulate support; and (iv) the average deposit size on the particulate support.